

# SAW Filter

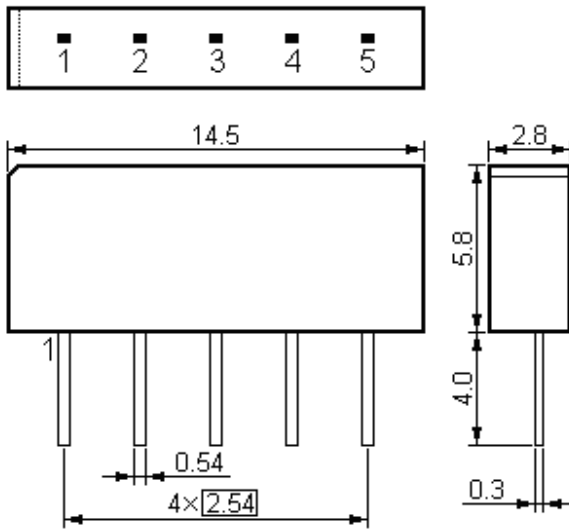
# VTF238903D

## IF Filter for Intercarrier Applications

### Features

- Standard: B/G, D/K
- TV IF filter with Nyquist slope and sound shelf
- Broad sound shelf for sound carriers at 32.40 MHz and 33.40 MHz
- Group delay predistortion

### Package Dimension Configuration

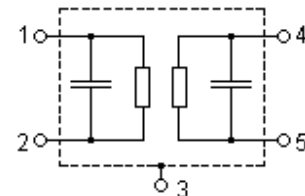
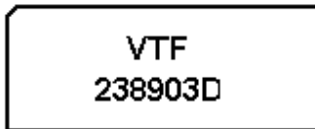


### Pin

- 1 Input
- 2 Input - ground
- 3 Chip carrier - ground
- 4 Output
- 5 Output

Plastic Package **SIP5D**  
Unit: mm

### Marking



### Performance

#### Maximum Ratings

		Rating	Value	Unit
Operable	Temperature	Range	-25 to +65	
$T_A$				
Storage	Temperature	Range	-40 to +85	
$T_{stg}$				
DC	Voltage	(between any terminals)	12	V
$V_{DC}$				
AC	Voltage	(between any terminals)	10	V
$V_{PP}$				

## Electronic Characteristics

Reference temperature:  $T_A = 25\text{ °C}$ Terminating source impedance:  $Z_S = 50\ \Omega$ Terminating load impedance:  $Z_L = 2\text{ k}\Omega \parallel 3\text{ pF}$ 

Item		min.	typ.	max.	Unit
<b>Insertion attenuation</b>	$IL$				
Reference level for the following data	37.40 MHz	16.5	18.0	19.5	dB
<b>Relative attenuation</b>	$\alpha_{rel}$				
Picture carrier	38.90 MHz	6.5	7.5	8.5	dB
Color carrier	34.47 MHz	1.0	2.0	3.0	dB
Sound carrier	32.40 MHz	15.5	17.0	18.5	dB
	33.40 MHz	16.7	18.2	—	dB
Adjacent picture carrier	30.90 MHz	46.0	58.0	—	dB
	31.90 MHz	25.0	35.0	—	dB
Adjacent sound carrier	40.40 MHz	28.0	38.0	—	dB
	41.40 MHz	40.0	50.0	—	dB
Lower sidelobe	25.00 ... 30.90 MHz	32.0	40.0	—	dB
Upper sidelobe	40.40 ... 45.00 MHz	28.0	36.0	—	dB
<b>Reflected wave signal suppression</b>					
1.2 $\mu\text{s}$ ... 6.0 $\mu\text{s}$ after main pulse (test pulse 250 ns, carrier frequency 37.40 MHz)		42.0	54.0	—	dB
<b>Feedthrough signal suppression</b>					
1.2 $\mu\text{s}$ ... 1.1 $\mu\text{s}$ before main pulse (test pulse 250 ns, carrier frequency 37.40 MHz)		50.0	56.0	—	dB
<b>Group delay predistortion</b>	$\Delta\tau$				
(reference frequency 38.90 MHz)					
	36.90 MHz	—	-55	—	ns
	34.47 MHz	—	45	—	ns
<b>Temperature coefficient of frequency</b>	$TC_f$	—	-72	—	ppm/K

Frequency Response

